



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,887	12/02/2005	Junichi Kuratomi	G12-195095C/KK	6130

21254 7590 04/05/2007  
MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC  
8321 OLD COURTHOUSE ROAD  
SUITE 200  
VIENNA, VA 22182-3817

EXAMINER
----------

WILLIAMS, SHERMANDA L

ART UNIT	PAPER NUMBER
----------	--------------

1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/558,887

Applicant(s)

KURATOMI ET AL.

Examiner

Shermanda L. Williams

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/2/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 12/2/05 has been placed in the application file, and the examiner has considered the information referred to therein.

### ***Specification***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.
3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Duplicate Claims***

4. Applicant is advised that should claims 1 and 3-5 be found allowable, claims 2 and 6-8 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiozaki et al. (JP 2003-007298). Shiozaki et al. discloses a positive electrode active material having an  $\alpha$ -NaFeO<sub>2</sub>-type crystal structure represented by the formula  $\text{Li}_x\text{Mn}_a\text{Ni}_b\text{Co}_c\text{O}_2$  (where  $0.30 \leq a \leq 0.5$ ,  $0.36 \leq b \leq 0.55$ ,  $0 \leq c \leq 0.34$ ,  $0.95 \leq x/(a+b+c) \leq 1.05$ ). (See Abstract and claim 1) Example 1 discloses the formula  $\text{Li}_1\text{Mn}_{0.33}\text{Ni}_{0.33}\text{Co}_{0.33}\text{O}_2$  for the positive electrode active material (paragraph 68, 69). The subscripts for the chemical composition of the prior art fall within or overlap the subscript ranges as claimed by the applicant.

Art Unit: 1745

7. Vinylene Carbonate is used as the cyclic carbonate having a carbon-carbon  $\pi$  bond (paragraph 31). The negative electrode is comprised of graphite (paragraph 34, 38).
8. The non-aqueous electrolyte uses a mixture of an inorganic lithium salt and an organic lithium salt having a perfluoroalkyl group (paragraph 31). The non-aqueous electrolyte is comprised of  $\text{LiPF}_6$  or  $\text{LiBF}_4$  as an inorganic lithium salt (paragraph 32). The non-aqueous electrolyte is comprised of  $\text{LiN}(\text{CF}_3\text{SO}_2)_2$  or  $\text{LiN}(\text{C}_2\text{F}_5\text{SO}_2)_2$  as an organic lithium salt having a perfluoroalkyl group (paragraph 32).
9. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwakoshi et al. (JP 08-213015). Iwakoshi et al. discloses a positive electrode active material having an  $\alpha\text{-NaFeO}_2$ -type crystal structure represented by the formula  $\text{Li}_x\text{M}_c\text{Ni}_a\text{Co}_b\text{O}_2$  (where  $0.01 \leq a \leq 0.99$ ,  $0.01 \leq b \leq 0.99$ ,  $0.01 \leq c \leq 0.3$ ,  $0.8 \leq (a+b+c) \leq 1.2$ ). M is at least one element selected for the group comprising Al, V, Mn, Fe, Cu, and Zn (See Abstract and claim 1). The value for subscript "X" is  $0.8 \leq x \leq 1.2$  (paragraph 11). The subscripts for the chemical composition of the prior art fall within or overlap the subscript ranges as claimed by the applicant.
10. Vinylene Carbonate is used as the cyclic carbonate having a carbon-carbon  $\pi$  bond (paragraph 20). The negative electrode is comprised of graphite (paragraph 19).
11. The non-aqueous electrolyte uses a mixture of an inorganic lithium salt and an organic lithium salt having a perfluoroalkyl group (paragraph 21). The non-aqueous electrolyte is comprised of  $\text{LiPF}_6$  or  $\text{LiBF}_4$  as an inorganic lithium salt (paragraph 21).

Art Unit: 1745

The non-aqueous electrolyte is comprised of  $\text{LiN}(\text{CF}_3\text{SO}_2)_2$  as an organic lithium salt having a perfluoroalkyl group (paragraph 21).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shermanda L. Williams whose telephone number is (571) 272-8915. The examiner can normally be reached on Mon.-Thurs. 7 AM - 4:30 PM and alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

\*\*\*

  
SUSY TSANG-FOSTER  
PRIMARY EXAMINER